

## MISCELLANEOUS NEW TAXA OF BROMELIACEAE (IX)

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### ABSTRACT

Based on field and herbarium study, the following new taxa are described: *Guzmania kentii*, *G. rhonhofiana* forma *variegata*, and *G. zakii* from Ecuador; *Guzmania armeniaca* from Panamá, and *Pepinia neglecta* from Perú. In addition, *Pitcairnia beachiae* is transferred to the genus *Pepinia*, and *Pitcairnia pulchella* is reclassified as a variety of *P. nigra*. Miscellaneous New Taxa of Bromeliaceae (VIII) was published in *Selbyana* 12:68-90. 1991.

KEY WORDS: Bromeliaceae, Costa Rica, Ecuador, *Guzmania*, Panamá, Perú, *Pepinia*, *Pitcairnia*, systematics

### COSTA RICA

The re-establishment of the genus *Pepinia* Brongn. ex André requires the following new combination:

*Pepinia beachiae* (Utley & Burt-Utley) Luther, *comb. nov.* BASIONYM: *Pitcairnia beachiae* Utley & Burt-Utley, *Ann. Missouri Bot. Gard.* 78:266-7. 1991.

### ECUADOR

*Guzmania kentii* Luther, *sp. nov.* (Figure 1). TYPE: ECUADOR. Imbabura, mountains east of Lita, 1500-1700 m, Jan. 1987, *J. Kent legit.* Flowered in cultivation, Dec 1990, *H.E. Luther s.n.* (HOLOTYPE: SEL).

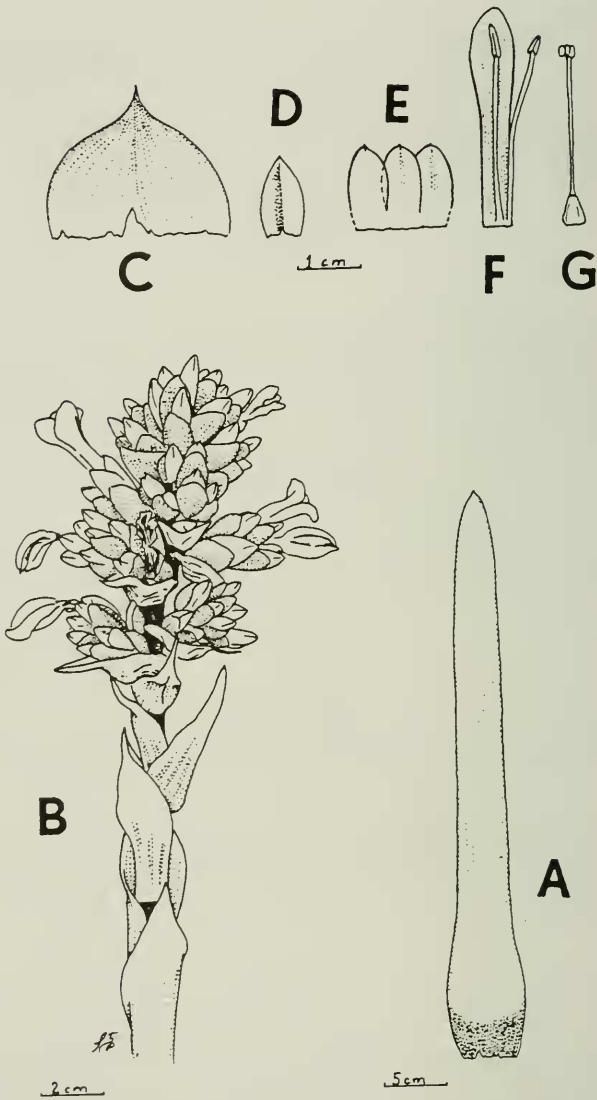


Figure 1. *Guzmania kentii*. A. leaf. B. inflorescence. C. primary bract. D. floral bract. E. calyx. F. petal with stamens. G. pistil.

A *Guzmania goudotiana* Mez, cui affinis, inflorescentia ramossissima, sepalis bracteis excedibus, petalis longioribus differt.

Plant flowering to 0.5 m tall. Leaves densely rosulate, laxly spreading, 75-90 cm long, thin coriaceous, inconspicuously appressed punctate lepidote especially abaxially. Leaf sheaths elliptic, 8-10 × 5-7 cm, brown punctate lepidote, dark castaneous abaxially. Leaf blades ligulate, broadly acute and apiculate, 20-40 mm wide, light green. Scape erect, 30-40 cm × 5-6 mm, glabrous, light orange-rose. Scape bracts erect, imbricate, the lower subfoliaceous and green or green with orange-rose striations, the upper elliptic, acute to attenuate, green striated and suffused with orange-rose, exceeding but exposing the internodes of the scape. Inflorescence densely bipinnate, 6-10 × 4-8 cm with 8-10 polystichously arranged branches. Primary bracts elliptic to broadly ovate, acute and apiculate, shorter than the branches, light yellow-green with rose striations or solid orange-rose. Branches subsessile, spreading at 45-90° from the axis, 2-4 × 1-2 cm, 6-15-flowered. Floral bracts elliptic, acute, 12-15 mm long, thin coriaceous, nerved, carinate, orange-rose. Flowers with a 1-3 mm long stout pedicel, erect to slightly spreading at anthesis, opening at approximately midnight and closing soon after dawn. Sepals elliptic, acute, 14-15 mm long, thin coriaceous, nerved, carinate, connate 3-5 mm, pale yellow. Corolla with spreading lobes. Petals oblanceolate, obtuse, 30-36 mm long, closely agglutinates for ca. 20 mm, white.

This colorful new species seems to be closely related to the Colombian *Guzmania goudotiana*, but is distinguished by its more richly branched inflorescence, sepals that all exceed the floral bracts and much longer petals. The brilliant coloration of the inflorescence seems at odds with its late nocturnal anthesis.

The specific name honors Mr. Jeffrey Kent, president of Kent's Bromeliad Nursery, Vista, California, who has amassed an outstanding collection of guzmanias.

***Guzmania rhonhofiana* Harms forma variegata Luther, forma nov.** TYPE: ECUADOR. Pichincha, grounds of Hotel Tinalandia between Santo Domingo and Allurquin, 700-800 m, 1 Dec 1991, B. Girko E91D-021 (HOLOTYPE: SEL).

A typo *G. rhonhofianae* Harms foliis flavovirentibus striatis differt.

Yellow striated plants of *Guzmania rhonhofiana* are rather common in relict patches of forest near Santo Domingo de los Colorados (pers. obs.), and are reported to be especially conspicuous on the grounds of the Hotel Tinlandia.

*Guzmania zakii* Luther, *sp. nov.* (Figure 2). TYPE: ECUADOR. Pastaza, Carretera de Petro-Canada, 115 km S of Coca, 4 km S of Río Tigüino, 320 m, 22-28 Feb 1989, *Vlastimil Zak 4017* (HOLOTYPE: MO).

A *G. alstonii* L.B. Smith, cui affinis, inflorescentia digitata minoreque et petalis longioribus differt; a *G. acuminata* L.B. Smith, cui similis, laminis foliorum perlatioibus et bracteis florigeris majoribus differt.

Plant flowering 0.6-0.9 m tall. Leaves densely rosulate, spreading, 20 or more in number, 75-100 cm long. Leaf sheaths elliptic, 10-15 × 5-8 cm, castaneous and densely brown punctate lepidote especially abaxially. Leaf blades ligulate, acute to acuminate, 3-4 cm wide, appressed punctate lepidote especially abaxially, dark green, paler toward the margins when dried. Scape erect, 50-75 cm × 4-5 mm, glabrous. Scape bracts erect, densely imbricate, much exceeding the internodes, the lowest subfoliaceous, the upper elliptic, acute to acuminate, lustrous and castaneous toward the base abaxially, green. Inflorescence digitate broadly ovoid, 6-8 × 6-9 cm, with 3 to 5 branches. Primary bracts broadly elliptic, to ovate, acuminate, nearly equaling to exceeding the branches, lustrous and castaneous toward the base abaxially, green drying stramineous. Branches subsessile, spreading at ca. 45° from the main axis, ovoid, 2-5 × 2-4 cm, 10 to 20-flowered. Floral bracts broadly elliptic, ovate or obovate, 20-24 × 12-20 mm, thin, coriaceous with membranous margins, lustrous, green drying stramineous. Flowers with a 2-3 mm long stout pedicel, erect to slightly spreading, probably opening at night. Sepals elliptic, acute, 15-18 mm long, the adaxial pair basally carinate, connate 2-4 mm. Corolla widely spreading. Petals spatulate, obtuse, 25 mm long, ca. 1/3 connate, white, stamens and style conspicuously exerted at anthesis due to the spreading of the petals.

Paratypes: ECUADOR. Sucumbios, Reserva Faunistica Cuyabeno, Laguna Grande, 265 m, 11 March 1990, *H. Balsley et al. 97204* (AAU, QCA); Pastaza, Carretera de Petro-Canada, 115 km S of Coca, 6 km S of the Río Tigüino, 320 m, 1-9 April 1989, *V. Zak & D. Rubio 4305* (MO).

*Guzmania zakii* may be distinguished from the related *G. alstonii* by its short, densely digitate inflorescence and larger corolla. It occurs as an epiphyte in lowland Amazonian forest, a habitat that is generally poor in *Guzmania* species. It is interesting to note that most of the few species of *Guzmania* distributed in Amazonia, including *G. zakii*, are night flowering and presumably bat-pollinated.

The epithet honors Vlastimil Zak of Quito, Ecuador, who first collected this new species during a botanical inventory sponsored by Petro-Canada & Gas Inc.

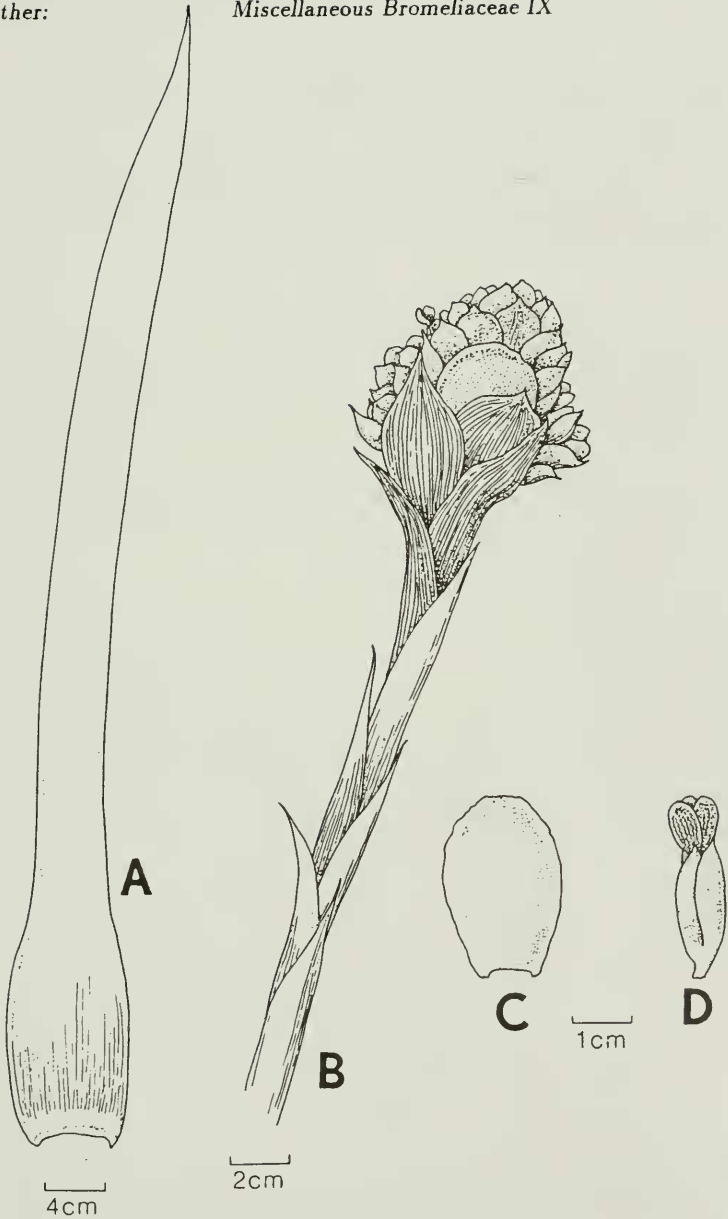


Figure 2. *Guzmania zakii*. A. leaf. B. inflorescence. C. floral bract. D. flower.

*Pitcairnia nigra* (Carr.) André var. *pulchella* (Mez) Luther, *comb. et stat. nov.* BASIONYM: *Pitcairnia pulchella* Mez in C. DeCandolle, *Monogr. Phan.* 9:459. 1896.

This taxon seems at best a smaller, more delicate morph of *Pitcairnia nigra*, a species with a distribution on both slopes of the Andes in Ecuador and adjacent Colombia.

#### PANAMA

***Guzmania armeniaca*** Luther, *sp. nov.* (Figure 3). TYPE: PANAMA. Panamá, Cero Jefe, 600-800 m, Jan 1985 *J. Kent legit.* Flowered in cultivation 5 Feb 1992, *H.E. Luther s.n.* (HOLOTYPE: SEL).

A *G. filiorum* L.B. Smith, cui affinis, inflorescencia brevioribus latioribusque, bracteis florigeris armeniacticis non viridibus differt; A *G. desautelsii* L.B. Smith & R.W. Read, cui similis, bracteis florigeris et sepalis longioribus differt.

Plant flowering to 23 cm tall, clustering. Leaves densely rosulate, spreading, 25-32 cm long, thin coriaceous, light green. Leaf sheaths elliptic, 7-10 × 3-4 cm, castaneous and brown ferruginous lepidote especially adaxially, red-purple striate or purple-suffused abaxially. Leaf blades ligulate, broadly acute and apiculate, 20-23 mm wide, punctate lepidote especially abaxially. Scape erect, 10-12 cm × 2-3 mm, much shorter than the leaves. Scape bracts erect, imbricate, the leaves subfoliaceous, green; the upper narrowly elliptic, acute to attenuate, green to orange. Inflorescence strobilate, 5-6 × 4-5 cm, densely polystichously 35-40-flowered. Floral bracts elliptic to obovate, acute to rounded and apiculate, 25-27 × 14-17 mm, thin coriaceous, lustrous, light orange with inconspicuous darker striations. Flowers with a stout 1-2 mm pedicel, erect to slightly spreading, opening during the morning. Sepals elliptic, broadly acute, 15-17 mm long, connate 3-5 mm, thin coriaceous, the adaxial pair carinate, pale yellow. Corolla erect, tubular. Petals ligulate, obtuse, somewhat cucullate, 23-28 mm long, closely agglutinated for 10-12 mm, pale yellow to cream, very slightly exerted beyond the floral bracts. Stamens and pistil included. Some of the anthers adhering to the stigma at anthesis.

This attractive new species seems most closely related to *Guzmania filiorum*, also from Panamá. It is distinct by having a shorter but broader many-flowered inflorescence with light orange (not light green) floral bracts, and yellow or cream (not white) petals. It is also similar and probably related to *G. desautelsii* from Costa Rica and Panamá, but may be distinguished by shorter floral bracts (25-27 vs. 40 mm) and sepals (15-17 vs. 20 mm), as well as light orange (not dark orange to purple-red) bracts.

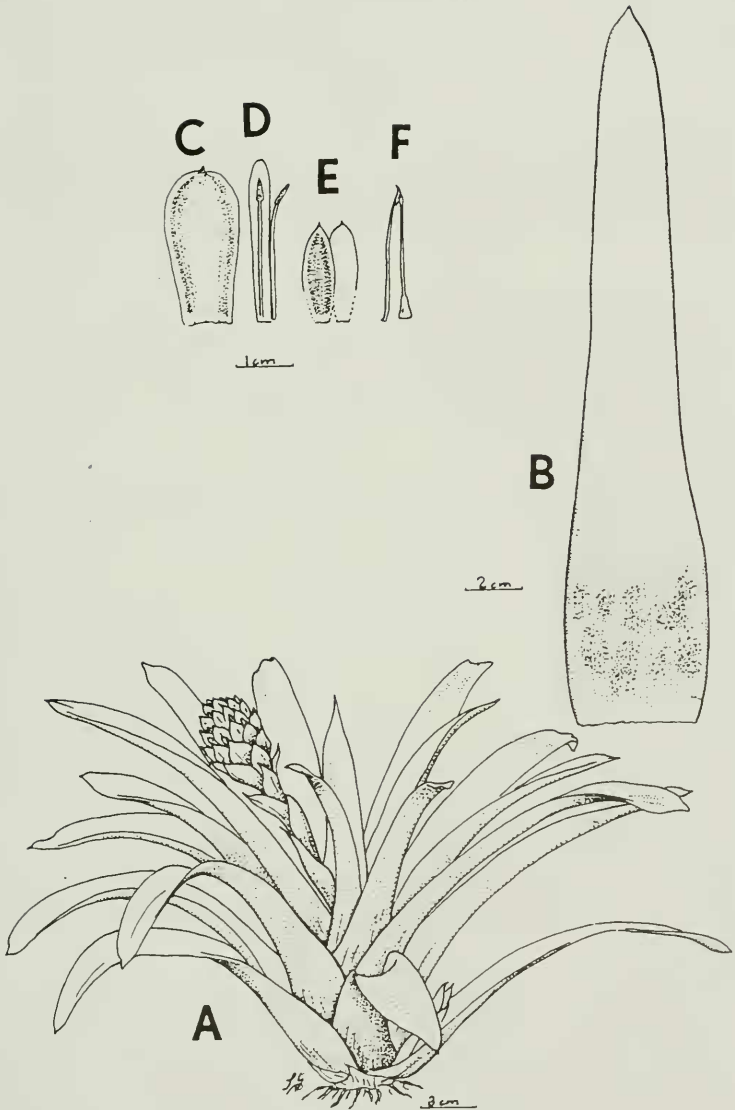


Figure 3. *Guzmania armeniaca*. A. habit. B. leaf, adaxial surface. C. floral bract. D. petal with two stamens. E. sepals. F. pistil with anther adherent to stigma.

## PERU

*Pepinia neglecta* Luther, *sp. nov.* (Figure 4). TYPE: PERU. San Martín, roadside between Tarapoto and Yurimaguas, 1000 m, July 1981, *J. Halton & L. Besse legit.* Flowered in cultivation (SEL 81-2007) 5 Feb 1992, *H.E. Luther s.n.* (HOLOTYPE: SEL; Isotypes: USM,US).

A *P. quesnelioides* (L.B. Smith) Varadarajan & Gilmartin, *cui similis*, bracteis florigeris coriaceis non herbaceis fibrosisque, petalis majoribus differt; a *P. alexanderi* Luther, *cui similis affinisque*, inflorescentiae latioribus erectisque, sepalis petalisque longioribus differt.

Plant flowering to over 1 m tall, clustering, somewhat caulescent. Leaves essentially monomorphic, laxly rosulate, spreading, pseudopetiolate, to 1.65 m long. Leaf sheaths elliptic to ovate, 2-5 × 2-3 cm, nerved, castaneous, brown lepidote especially abaxially. Leaf blades with a 40-75 × 1-2 cm, channeled, laxly serrate pseudopetiole; the upper portion of the blade very narrowly elliptic, attenuate, 4-8 cm wide, channeled, somewhat plicate, subdensely antrorse serrate with 0.5-1.0 mm dark spines, bright green, somewhat paler abaxially. Scape erect to decurved, 15-30 cm × 8-12 mm, reddish. Scape bracts erect, imbricate, elliptic to ovate, acute to attenuate, thin coriaceous, exceeding the internodes, tan or reddish. Inflorescence erect, simple, cylindrical, 15-27 × 4-6 cm, densely polystichous-flowered. Floral bracts erect, densely imbricate, broadly elliptic to ovate, obtuse to apiculate, 30-43 × 20-28 mm, thin coriaceous, even to somewhat nerved, glabrous, red. Flowers with a stout 2-5 mm pedicel, erect. Sepals free, triangular, obtuse or retuse, 27-31 mm long, thin coriaceous, slightly nerved, white to pale green. Corolla strongly zygomorphic, arcuate. Petals oblanceolate, obtuse, 75-85 mm long, each with a single and variable 10-15 mm long, emarginate appendage at the base, bright red with a white margin.

Paratype: PERU. Type locality, clone of the holotype, 15 Sept 1983, *H.E. Luther s.n.* (SEL); 4 Feb 1987, *T. Walters 1996* (SEL).

This new species is related to and resembles *Pepinia alexanderi* from south-eastern Ecuador but may be distinguished by its broader inflorescence which is held erect, and by longer sepals (27-31 mm vs. 23 mm) and petals (75-85 mm vs. 70 mm). Also, the floral bracts do not become necrotic and black immediately after anthesis.

The similar *Pepinia quesnelioides* from Amazonian Colombia and Perú may be easily separated by its fugaceous, quickly tattered floral bracts and much shorter (50 mm vs. 75-85 mm long) petals.

The type and only known collection of *Pepinia neglecta* has flowered several times in the Display Greenhouse of the Marie Selby Botanical Gardens.



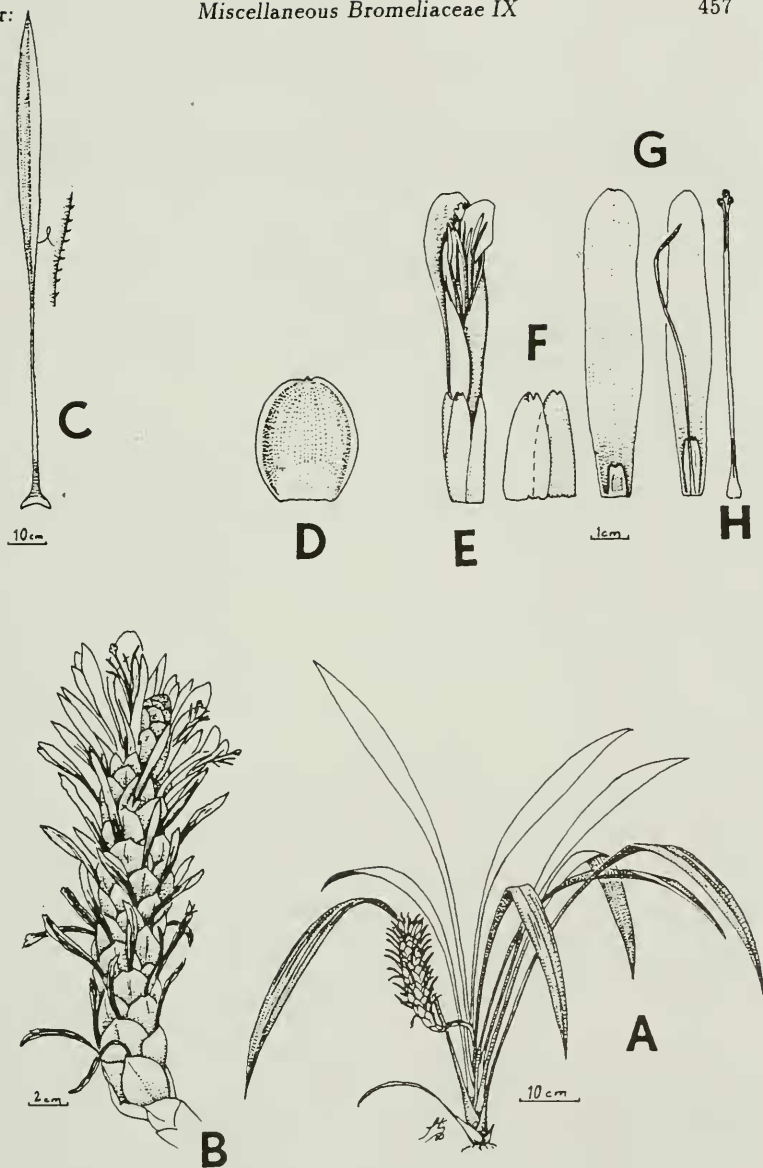


Figure 4. *Pepinia neglecta*. A. habit. B. inflorescence. C. leaf, adaxial view. D. floral bract. E. flower. F. sepals, adaxial pair. G. petals showing dimorphism and a single stamen. H. pistil.

Although it was collected over a decade ago, it inexplicably escaped my critical attention until very recently. It is a spectacular, albeit large, ornamental with considerable horticultural appeal.

#### ACKNOWLEDGMENTS

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